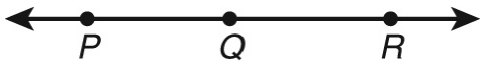
Name: _____ Class: _____ Date: _____ ID: A

Regular Geometry Quarter 1 Review

Multiple Choice
Identify the choice that best completes the statement or answers the question.

____ 1 Which of $\overline{PQ}$ and $\overleftrightarrow{QR}$ contains *P?*



ⓐ $\overline{PQ}$ only
ⓑ $\overleftrightarrow{QR}$ only
ⓒ Both
ⓓ Neither

____ 2 *K* is between *J* and *L*. $JK = 3x - 5$, and $KL = 2x + 1$. If $JL = 16$, what is *JK*?

ⓐ 7
ⓑ 8
ⓒ 9
ⓓ 13

____ 3 $\overrightarrow{SU}$ bisects $\angle RST$. If $m\angle RST = (8x + 15)°$ and $m\angle RSU = 5x°$, what is $m\angle RST$?

ⓐ 25°
ⓑ 37.5°
ⓒ 50°
ⓓ 75°

____ 4 If the complement of an angle measure 22°, what is the measure of its supplement?

ⓐ 68°
ⓑ 78°
ⓒ 112°
ⓓ 158°

____ 5 The perimeter of a square is 8 meters. What is its area?

ⓐ $4\ \text{m}^2$
ⓒ $16\ \text{m}^2$
ⓑ $8\ \text{m}^2$
ⓓ $64\ \text{m}^2$

____ 6 What is the area of a circle whose diameter is 3 centimeters?

ⓐ $1.5\pi\ \text{cm}^2$
ⓒ $6\pi\ \text{cm}^2$
ⓑ $2.25\pi\ \text{cm}^2$
ⓓ $36\pi\ \text{cm}^2$

____ 7 The midpoint of a segment is $(2,-5)$, and one of the endpoints is $(3,6)$. Where is the other endpoint?

ⓐ $(1,-16)$
ⓒ $(2.5,0.5)$
ⓑ $(4,17)$
ⓓ $(0.5,5.5)$

____ 8 Where is the image of $(-6,2)$ reflected across the graph of $y = -x$?

ⓐ $(2,-6)$
ⓒ $(2,6)$
ⓑ $(-2,-6)$
ⓓ $(-2,6)$

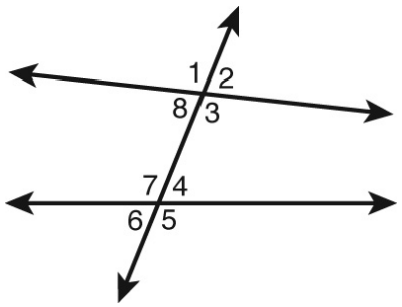
____ 9 What is the next term in the sequence?
729, –243, 81, –27, …

ⓐ –9
ⓒ 3
ⓑ –3
ⓓ 9

____ 10 Complete the statement.
Two lines are parallel if the same-side interior angles are _____ angles.

ⓐ complementary
ⓑ supplementary
ⓒ congruent
ⓓ corresponding

____ 11 Which angles are alternate interior angles?

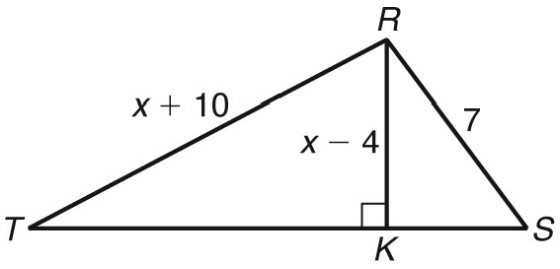


ⓐ $\angle 1$ and $\angle 4$
ⓑ $\angle 1$ and $\angle 5$
ⓒ $\angle 3$ and $\angle 4$
ⓓ $\angle 3$ and $\angle 7$

____ 12 A line passes through the points $(5,-8)$ and $(6,2)$. What is the slope?

ⓐ -10
ⓑ $-\frac{6}{11}$
ⓒ $\frac{1}{10}$
ⓓ 10

____ 13 Find all values for x.



ⓐ $x < 11$
ⓑ $0 < x < 11$
ⓒ $4 < x < 11$
ⓓ $x > -3$

____ 14 What is the slope of the line perpendicular to $y = -\frac{3}{2}x + 9$?

ⓐ $\frac{3}{2}$
ⓑ $\frac{2}{3}$
ⓒ $-\frac{2}{3}$
ⓓ $-\frac{3}{2}$

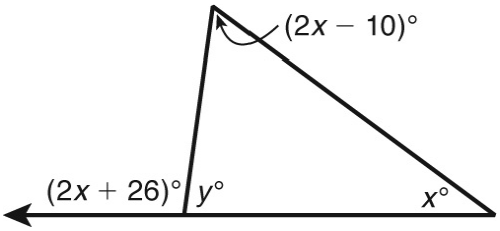
____ 15 What is the equation of the line that passes through $(0,2)$ and $(4,6)$?

ⓐ $y = x + 2$
ⓑ $y = \frac{1}{2}x - 2$
ⓒ $y = x - 2$
ⓓ $y = -2x + 2$

____ 16 Three sides of a triangle are shown. Which triangle is acute?

ⓐ 3, 4, 5
ⓑ 5, 12, 13
ⓒ 4, 5, 6
ⓓ 4, 7, 10

____ 17 Find y.



ⓐ 36°
ⓑ 82°
ⓒ 128°
ⓓ 134°

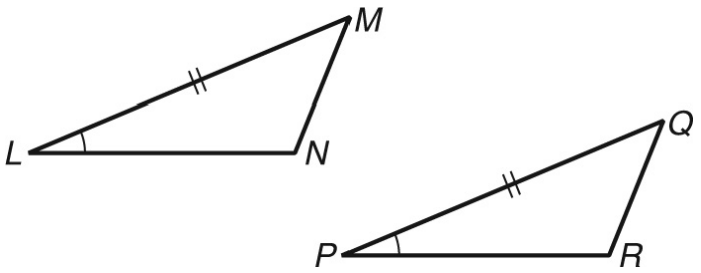
____ 18 Point R in ΔQRS has coordinates $(-2,1)$. ΔQRS underwent a dilation with scale factor 5 centered at the origin. What are the coordinates of the image of R?

ⓐ $(-10,1)$
ⓑ $(-10,5)$
ⓒ $(-0.4,1)$
ⓓ $(-0.4,0.2)$

____ 19 Complete the statement.
If $\angle U \cong \angle P$, $\angle S \cong \angle Q$, $\angle T \cong \angle R$, $\overline{UT} \cong \overline{PR}$, $\overline{US} \cong \overline{PQ}$, and $\overline{ST} \cong \overline{QR}$, then $\Delta PQR \cong$_____.

ⓐ ΔRQP
ⓑ ΔSTU
ⓒ ΔTUS
ⓓ ΔUST

____ 20 What is the least information needed to prove the triangles congruent by SSS?



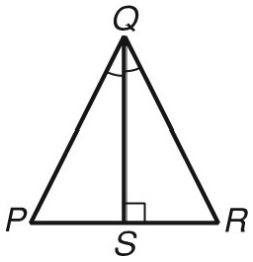
ⓐ $\angle M \cong \angle Q$

ⓑ $\overline{LN} \cong \overline{PR}$

ⓒ $\overline{LN} \cong \overline{PR}$ and $\overline{MN} \cong \overline{QR}$

ⓓ $\overline{LN} \cong \overline{QR}$ and $\overline{MN} \cong \overline{PR}$

____ 21 Why is $\Delta PQS \cong \Delta RQS$?



ⓐ SAS

ⓑ ASA

ⓒ AAA

ⓓ HL

____ 22 **Given:** $TUVW$ is a rectangle.
Prove: $TV = UW$
Which set of coordinates could you use to do a coordinate proof?

ⓐ $T(0,0), U(a,b), V(0,c), W(-a,c-b)$

ⓑ $T(0,0), U(a,0), V(a,b), W(0,b)$

ⓒ $T(a,b), U(a+b,0), V(a+b,c), W(0,c)$

ⓓ $T(0,0), U(a,0), V(a,a), W(0,a)$

____ 23 One of the base angles of an isosceles triangle is 40°. Which is the triangle classification according to its angles?

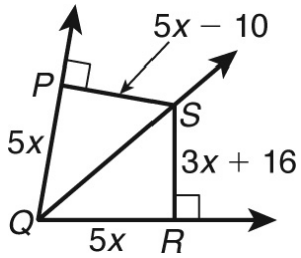
ⓐ acute

ⓑ right

ⓒ obtuse

ⓓ equiangular

____ 24 $\overrightarrow{QS}$ bisects $\angle PQR$. what is QR?



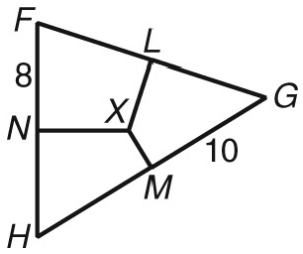
ⓐ 65

ⓑ 50

ⓒ 40

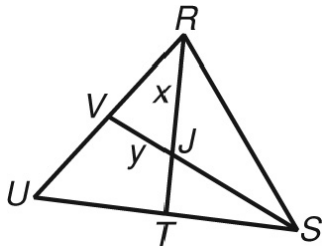
ⓓ 15

____ 25 $\overline{XL}$, $\overline{XM}$, and $\overline{XN}$ are perpendicular bisectors. The perimeter of $\triangle FGH$ is 54. What is FG?



ⓐ 36
ⓒ 18
ⓑ 27
ⓓ 9

____ 26 $\overline{SV}$ and $\overline{RT}$ are medians. What is $JS - JT$?



ⓐ $x - y$
ⓒ $2y - \frac{1}{2}x$
ⓑ $2x - 3y$
ⓓ $\frac{1}{2}x - 2y$

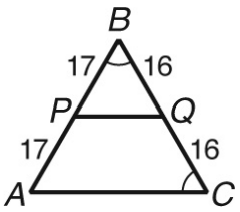
____ 27 In $\triangle JKL$, $JK > JL > KL$. Which is the correct order of the angles from smallest measure to largest?

ⓐ $\angle J, \angle L, \angle K$
ⓒ $\angle K, \angle L, \angle J$
ⓑ $\angle J, \angle K, \angle L$
ⓓ $\angle L, \angle K, \angle J$

____ 28 Two sides of a $30° - 60° - 90°$ triangle are 9 and 18. What is the length of the third side?

ⓐ $9\sqrt{2}$
ⓑ $9\sqrt{3}$
ⓒ $18\sqrt{2}$
ⓓ $18\sqrt{3}$

____ 29 $\overline{PQ}$ is a midsegment. What is PQ?



ⓐ 16
ⓑ 17
ⓒ 32
ⓓ 34

Regular Geometry Quarter 1 Review
Answer Section

MULTIPLE CHOICE

1	ANS: C	PTS: 1	DIF: 2	TOP: Cumulative Test, Chapter 5	MSC: DOK 1		
2	ANS: A	PTS: 1	DIF: 2	TOP: Cumulative Test, Chapter 5	MSC: DOK 2		
3	ANS: D	PTS: 1	DIF: 2	TOP: Cumulative Test, Chapter 5	MSC: DOK 2		
4	ANS: C	PTS: 1	DIF: 2	TOP: Cumulative Test, Chapter 5	MSC: DOK 2		
5	ANS: A	PTS: 1	DIF: 2	TOP: Cumulative Test, Chapter 5	MSC: DOK 2		
6	ANS: B	PTS: 1	DIF: 2	TOP: Cumulative Test, Chapter 5	MSC: DOK 2		
7	ANS: A	PTS: 1	DIF: 2	TOP: Cumulative Test, Chapter 5	MSC: DOK 2		
8	ANS: D	PTS: 1	DIF: 2	TOP: Cumulative Test, Chapter 5	MSC: DOK 2		
9	ANS: D	PTS: 1	DIF: 2	TOP: Cumulative Test, Chapter 5	MSC: DOK 2		
10	ANS: B	PTS: 1	DIF: 2	TOP: Cumulative Test, Chapter 5	MSC: DOK 1		
11	ANS: D	PTS: 1	DIF: 2	TOP: Cumulative Test, Chapter 5	MSC: DOK 1		
12	ANS: D	PTS: 1	DIF: 2	TOP: Cumulative Test, Chapter 5	MSC: DOK 2		
13	ANS: C	PTS: 1	DIF: 2	TOP: Cumulative Test, Chapter 5	MSC: DOK 2		
14	ANS: B	PTS: 1	DIF: 2	TOP: Cumulative Test, Chapter 5	MSC: DOK 2		
15	ANS: A	PTS: 1	DIF: 2	TOP: Cumulative Test, Chapter 5	MSC: DOK 2		
16	ANS: C	PTS: 1	DIF: 2	TOP: Cumulative Test, Chapter 5	MSC: DOK 2		
17	ANS: B	PTS: 1	DIF: 2	TOP: Cumulative Test, Chapter 5	MSC: DOK 2		
18	ANS: B	PTS: 1	DIF: 2	TOP: Cumulative Test, Chapter 5	MSC: DOK 2		
19	ANS: D	PTS: 1	DIF: 2	TOP: Cumulative Test, Chapter 5	MSC: DOK 2		

20 ANS: C PTS: 1 DIF: 2
NAT: NT.CCSS.MTH.10.9-12.G.SRT.4 | NT.CCSS.MTH.10.9-12.G.CO.10
TOP: Cumulative Test, Chapter 5 MSC: DOK 2
21 ANS: B PTS: 1 DIF: 2 TOP: Cumulative Test, Chapter 5
MSC: DOK 2
22 ANS: B PTS: 1 DIF: 2 NAT: NT.CCSS.MTH.10.9-12.G.CO.9
TOP: Cumulative Test, Chapter 5 MSC: DOK 2
23 ANS: C PTS: 1 DIF: 2 TOP: Cumulative Test, Chapter 5
MSC: DOK 2
24 ANS: A PTS: 1 DIF: 2 TOP: Cumulative Test, Chapter 5
MSC: DOK 2
25 ANS: C PTS: 1 DIF: 2 TOP: Cumulative Test, Chapter 5
MSC: DOK 2
26 ANS: C PTS: 1 DIF: 2 TOP: Cumulative Test, Chapter 5
MSC: DOK 3
27 ANS: B PTS: 1 DIF: 2 TOP: Cumulative Test, Chapter 5
MSC: DOK 2
28 ANS: B PTS: 1 DIF: 2 TOP: Cumulative Test, Chapter 5
MSC: DOK 2
29 ANS: B PTS: 1 DIF: 2 TOP: Cumulative Test, Chapter 5
MSC: DOK 3